

Claims

1. Use of substances that bind to the components of the cytoskeleton, especially to EF-Tu, for cell digestion.
2. Use according to claim 1 for cell digestion of bacteria cells.
3. Use according to claim 1 or 2, characterized in that the substances bind to the EF-Tu in the area of the domain 2 (amino acids 205 to 298) and/or of the domain 3 (amino acids 299 to 349).
4. Use according to one of the preceding claims, wherein the substances bind to the EF-Tu in the area of the amino acids 218 to 224 of the domain 2 and/or in the area of amino acids 317 to 328 and/or 343 to 354 of the domain 3.
5. Use according to one of the preceding claims, wherein the substances contain partial segments of the amino acid sequences from the domains 2 and/or 3 with a length of at least four amino acids.
6. Use according to claim 5, wherein the partial segments have a length from 5 to 15 amino acids, especially from 6 to 12 amino acids.
7. Use according to one of claims 1 to 5, wherein the substances contain the domain 3 of EF-Tu and no other domain of EF-Tu.
8. Use according to one of the preceding claims, wherein the substances are chosen from linear or cyclic peptide compounds or peptide mimetic agents.
9. Process for digestion of cells, wherein components of the cytoskeleton are destabilized in the cells.

10. Process according to claim 9, wherein substances that bind to the components of the cytoskeleton are used for destabilization.

11. Process according to claim 9 or 10, wherein substances that bind to EF-Tu are used.

12. Process according to one of claims 9 to 11, wherein substances are used that bind to the EF-Tu in the area of the domain 2 (amino acids 205 to 298) and/or domain 3 (amino acids 299 to 394), especially in the area of amino acids 218 to 224 of the domain 2 and/or in the area of amino acids 317 to 328 and/or 343 to 354 of the domain 3.

13. Process according to one of claims 12 or 13, wherein substances are used that contain partial segments of the amino acid sequences from the domains 2 and/or 3 with a length of at least 4 amino acids, especially of at least 5 amino acids.

14. Process according to one of claims 10 to 13, wherein nucleic acids are introduced into the cells that code for the substances that destabilize the cytoskeleton.

15. Process for producing a compound, wherein cells are used into which a sequence has been introduced, coding for a compound that destabilizes components of the cytoskeleton of the cells, the cells are cultivated and in this way the desired intracellular compound is obtained.

16. Process according to claim 15, wherein the desired compound is intracellularly produced by cultivation of cells and, in a second step, lysis of the cells is caused by induction of expression of the compound that destabilizes the cytoskeleton.

17. Process according to one of claims 16 [sic], wherein the desired compound is formed by heterologous expression.

18. Process according to one of claims 16 [sic], wherein the desired compound is formed by homologous expression.

19. Process according to one of claims 16 to 20, wherein induction takes place by quorum sensing.

20. Process according to one of claims 16 to 20, wherein the sequence that codes for a compound that destabilizes the cytoskeleton of the cells in a construct is introduced into the cells, the construct containing additional regions that allow an induction of the synthesis of the compound.

21. Construct, comprising a sequence that codes for a compound that destabilizes components of the cytoskeleton of cells.

22. Construct according to claim 21, furthermore comprising a gene segment that allows the induction of synthesis of the compound that destabilizes the cytoskeleton.